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AN ***126:200090*** CA
TI Synthesis and drug release property of polysiloxane containing pendant long alkyl ether group
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SO Gaofenzi Xuebao (1997), (1), 62-67
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PB Kexue
DT Journal
LA Chinese
CC 37-3 (Plastics Manufacture and Processing)
Section cross-reference(s): 39, 63
AB Polysiloxanes and copolysiloxanes bearing pendant long alkyl ether groups were synthesized by the hydrosilylation of PHMS with allylalkyl ethers. Their phase transition properties were studied. Drug release properties of the blended rubber films consisting of PDMS and polysiloxanes or copolysiloxanes obtained were also investigated. The melting temp. of polysiloxanes or copolysiloxanes increase with lengthening of the pendant alkyl groups or the increase of the content of longer alkyl groups. X-ray diffraction showed that the pendant alkyl groups posses lateral order arrangement. The effect of temp. on the permeation rate of the drug Levonorgestrel (LNG) through the blended films with different polysiloxanes or copolysiloxanes were studied. The permeation rate of the drugs increase with increasing temp. and is accelerated as the phase transition from cryst. to isotropic.
ST polysiloxane contg alkyl ether group synthesis; permeation polysiloxane drug release; hydrosilylation polymethylsiloxane
IT Permeation
(drug permeation rate of polysiloxane contg. pendant long alkyl ether group)
IT Drug delivery systems
(films; synthesis and drug release property of polysiloxane contg. pendant long alkyl ether group)
IT Polymer chain structure
(in synthesis of polysiloxane contg. pendant long alkyl ether group)
IT Melting point
(m.p. of polysiloxane contg. pendant long alkyl ether group)
IT Hydrosilylation
(synthesis and drug release property of polysiloxane contg. pendant long alkyl ether group)
IT Polysiloxanes, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis and drug release property of polysiloxane contg. pendant long alkyl ether group)
IT 2530-83-8DP, polymers with PDMS and reaction products of allyl alkyl ethers with polymethylsiloxane 9004-73-3DP, Poly[oxy(methylsilylene)], reaction products with alkyl allyl ethers, polymers with PDMS and glycidylpropyltrimethoxysilane 9016-00-6DP, Dimethylsilanediol homopolymer, sru, reaction products with alkyl allyl ethers, polymers with PDMS and glycidylpropyltrimethoxysilane 25580-78-3DP, Allyl octadecyl ether, reaction products with polymethylsiloxane, PDMS, and (glycidyl)propyltrimethoxysilane 26459-58-5DP, Allyl hexadecyl ether, reaction products with polymethylsiloxane, PDMS, and (glycidyl)propyltrimethoxysilane 31900-57-9DP, Dimethylsilanediol homopolymer, polymers with and glycidylpropyltrimethoxysilane and reaction products of allyl alkyl ethers with polymethylsiloxane 49718-23-2DP, Methylsilanediol homopolymer, polymers with and glycidylpropyltrimethoxysilane and reaction products of allyl alkyl ethers with polymethylsiloxane
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(in synthesis of polysiloxane contg. pendant long alkyl ether group)
IT 106-95-6, Allyl bromide., reactions 107-18-6, Allyl alcohol, reactions 112-29-8, 1-Bromodecane 112-92-5, 1-Octadecanol 143-15-7, 1-Bromododecane 36653-82-4, 1-Hexadecanol
RL: RCT (Reactant)
(in synthesis of polysiloxane contg. pendant long alkyl ether group)

- IT - 3295-96-3P, n-Decyl allyl ether 6145-80-8P, Allyl dodecyl ether
25580-78-3P, Allyl octadecyl ether 26459-58-5P, Allyl hexadecyl ether
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(in synthesis of polysiloxane contg. pendant long alkyl ether group)
- IT - 6145-80-8DP, Allyl dodecyl ether, reaction products with
polymethylsiloxane, PDMS, and (glycidyl)propyltrimethoxysilane
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis and drug release property of polysiloxane contg. pendant
long alkyl ether group)
- IT - 3295-96-3DP, n-Decyl allyl ether, reaction products with
polymethylsiloxane, PDMS, and (glycidyl)propyltrimethoxysilane
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(synthesis and drug release property of polysiloxane contg. pendant
long alkyl ether group)